IN THE SPECIFICATION:

Please replace paragraph number **[0003]** with the following rewritten paragraph:

[0003] Cytokines are substances that are produced by cells of the immune system and are involved in regulation of humoral and cellular immune reactions and inflammatory responses. Many cytokines are known, and all exert influence on various reactions in the body in a complicated fashion. To illustrate their interdependency and the intricate web of relationships that exist between cytokines, one often speaks about the "cytokine ~~network".~~ network."

Please replace paragraph number **[0025]** with the following rewritten paragraph:

[0025] ~~Fig. 1~~Figs. 1A-1C Amino acid sequences and sources of selected peptides (SEQ ID NOs:12-14, FIGs. 1A-1C, respectively);

Please replace paragraph number **[0033]** with the following rewritten paragraph:

[0033] To determine the agonistic or antagonistic activity to IL-6 of the peptides synthesized from the sequences of the IL-6 receptor α or β, various concentrations of each of these peptides was combined with 50µl of the B9 cell suspension ($1*10^5$ cells/ml in DMEM+HT medium containing 5% FCS). This suspension was incubated for 1 hour at ~~°37C,~~ 37°C, and combined with each of the dilutions of IL-6 into flat-bottomed 96-well tissue culture plates (Greiner). Plates were incubated at 37°C for 72 h. IL-6 activity was assessed as described above.

Please replace paragraph number **[0041]** with the following rewritten paragraph:

[0041] HPLC analysis. Aliquots of 1 ml of medium was mixed with 100 µl of a solution of 11β-testosterone (12,5 µg/ml) in methanol as internal standard and extracted with 5 ml dichlormethane. The organic phase was transferred to clean tubes and evaporated to dryness at room temperature under a stream of nitrogen. The residues were dissolved in 130 µl 50% methanol and 20 µl of these solutions were injected for HPLC analysis. The stationary phase

consisted of a C18 glass column (20 cm, 3μm particle size, Chrompack, Middelburg, the Netherlands). The mobile phase consisted of buffer A (12% methanol, 75% milli Q water) and buffer B (64% methanol, 6% acetonitril, 30% milli Q water). With these buffers, an elution gradient was generated; 10-58% B from 0-45 minutes; 58-59% from 45-50 minutes; 59-10% from 50-53 minutes, with a flow rate of 0,8 ml/min. Metabolites were detected spectrophotometrically at 254 nm. Inhibition of IL-6 dependant ~~down~~down regulation of cytochrome P450 was determined by comparing the relative concentration of hydroxylated testosteron metabolites in medium from adherent hepatocytes incubated with synthetized peptides and IL-6, and the relative concentration of hydroxylated testosteron metabolites in medium from positive and negative control hepatocyte monolayers.

Please replace paragraph number **[0048]** with the following rewritten paragraph:

[0048] Agonistic activity was observed in a concentration range from 7.5 to 120 μg/ml peptide. These peptides induced proliferative growth of the IL-6 dependant cell line B9, and when combined with IL-6 enhanced proliferation of the B9 cell line was ~~examined1~~ examined and thus the biological activity of IL-6 was enhanced. At a concentration of ≥120 μg/ml these agonistic peptides had an antagonistic effect upon the biological activity of IL-6.